

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) Apparatus for testing circuitry having an array of solder-ball contacts or connection probes of a selected size, said solder-ball contacts having a contact area and a peripheral area, comprising:

 a support substrate having a working surface;

 a multiplicity of conductive pads mounted on said working surface;

 a multiplicity of conductive pathways extending from said multiplicity of conductive pads to test circuitry;

 at least one conductive member formed on each of said multiplicity of conductive pads and extending away from said working surface, said at least one conductive member comprising a wire bonder stud bump on top of another wire bonder stud bump of the same composition; and

 said conductive members formed on said conductive pads positioned on said support substrate to make an electrical connection with said peripheral area of said solder-ball contacts or connection points of a circuit placed against said apparatus.

2. (original) The apparatus of Claim 1 wherein said at least one conductive member formed on said conductive pads comprises two conductive members located to receive said peripheral area of a solder-ball contact for making said electrical connection.

3. (original) The apparatus of Claim 1 wherein said at least one conductive member formed on said conductive pads comprises three conductive members located to form an interconnection nest for making said electrical connection with said peripheral area.

4. (original) The apparatus of Claim 1 wherein said at least one conductive member formed on said conductive pads comprises at least four conductive members located to

form an interconnection nest for making said electrical connection with said peripheral area.

5. (original) The apparatus of Claim 1 wherein said at least one conductive member is formed from one of gold wire and aluminum wire.

6. (original) The apparatus of Claim 1 wherein said at least one conductive member formed on each of said conductive pads comprises a length of wire bonded to said conductive pad.

7-9. (canceled)

10. (previously presented) The apparatus of Claim 1 wherein said support substrate comprises a planar insulating material and said conductive pathways comprise conductive traces formed on said planar insulating material.

11. (original) The apparatus of Claim 10 wherein said conductive pathways are formed on said working surface.

12. (original) The apparatus of Claim 10 wherein said conductive pathways are formed substantially on a surface opposite said working surface and extend from said opposite surface through said insulating material to a conductive pad on said working surface.

13-28. (canceled)

29. (currently amended) An apparatus for testing an integrated circuit having solder ball interconnects, comprising:

a substrate;

a plurality of pads on said substrate;

a plurality of wire bonder stud bumps including a first stud bump on top of a second wire bonder stud bump of the same composition on at least one of said plurality of pads, whereby said wire bonder stud bumps form a nest for contacting one of said solder ball interconnects.

30. (currently amended) The apparatus of Claim 29, further comprising a wire extending from said first and second [stub bump] stud bumps away from said substrate.
31. (currently amended) The apparatus of Claim 29, wherein said stud [bump] bumps and said wire are gold.
32. (currently amended) The apparatus of Claim 29, wherein said stud [bump] bumps and said wire are aluminum.
33. (new) Apparatus for testing circuitry having an array of solder-ball contacts or connection probes of a selected size, said solder-ball contacts having a contact area and a peripheral area, comprising:
 - a support substrate having a working surface;
 - a multiplicity of conductive pads mounted on said working surface;
 - a multiplicity of conductive pathways extending from said multiplicity of conductive pads to test circuitry;
 - no more than two conductive member formed on each of said multiplicity of conductive pads and extending away from said working surface, said at least one conductive member comprising a wire bonder stud bump; and
 - said conductive members formed on said conductive pads positioned on said support substrate to make an electrical connection with said peripheral area of said solder-ball contacts or connection points of a circuit placed against said apparatus.
34. (new) The apparatus of claim 33, in which only one conductive member is formed on each of said multiplicity of conductive pads.